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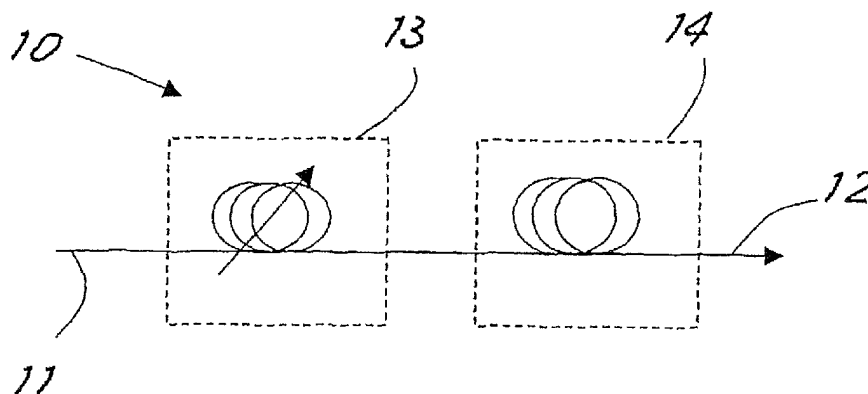
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(54) Title: OPTICAL MODULATION CONVERTER AND METHOD FOR CONVERTING THE MODULATION FORMAT OF AN OPTICAL SIGNAL



(57) Abstract: An optical modulation converter (10) for converting the modulation format of an optical input signal is characterized by a birefringent medium (14), polarization maintaining fibre, with a selected differential group delay between its two main axes of symmetry through which the optical input signal is passed to be separated into two optical components each travelling along one of the main axes of the medium at a different group velocity to thereby convert the modulation format of the input signal. By appropriate selection of the differential group delay imparted by the medium relative to the bit rate of the input signal and by appropriately presenting the input signal relative to the main axes of the medium conversion between different modulation formats can be achieved. These include direct conversion from optical DPSK (Differential Phase Shift Keying) to POLSK (POLarization Shift Keying), DPSK to IM (Intensity-Modulated) through an intermediated conversion to POLSK, POLSK to IMDD (Intensity Modulation Direct Detection), and IM to POLSK.

